Memorandum

To: Takoma Park Mayor and City Council

CC: Barb Matthews, Venita George, Howard Kohn

From: Paul Chrostowski, Ph.D., QEP, FRSH

Date: January 23, 2005

Re: Community Center Environmental Quality

Summary

In August 2004, Lawrence Abel & Associates, Ltd ("Abel") issued project specifications for the "Existing Second Level Interior Community Plaza Level 2 Renovation Bid Set" ("specs"). These specs are intended to form the basis for a request for proposal ("RFP") for construction services for this phase of the community center project. As per Council's request I evaluated the specs for inclusion of elements designed to enhance the environmental quality of the project. My review shows that the specs did not incorporate environmental concerns and are more oriented toward other concerns such as quality assurance and involvement in the nuclear weapons industry.

At this point, there seem to be four options regarding environmental quality in the RFP:

- Keep things as they are without making environmental quality a priority. This option will
 have the least impact on cost and schedule but will not result in any environmental
 improvements.
- Adopt California Specification 01350 by reference. Specification 01350 is a comprehensive building specification developed by the California Department of Energy for construction of schools and other state buildings. It would require very little effort to incorporate this standard, however, local bidders will be unfamiliar with it and there may be elements that are impractical for Takoma Park. There would likely be a major cost implication of working to the level of Specification 01350. On the plus side, it would result in the highest degree of environmental quality and, if fully implemented, may lead to LEED certification of the project.
- Re-write the specs to include those elements of California Specification 01350 that are most
 important and relevant. This would ensure that local bidders would not be impacted by
 unfamiliar bid requirements and that impractical (and more costly) elements would be
 avoided. This option would result in enhancement of environmental quality, however, there
 would still be cost implications, including the cost of re-writing the spoecs.
- Include general language in the RFP ("environmental preferences" that has the intent of enhancing environmental quality without adding burdensome requirements to the specs. Examples of environmental preferences include a preference for vendors that have been ISO 14000 certified, vendors whose point of manufacture is close to Takoma Park, materials that have substantial post-consumer recycled content, materials that are recyclable at the end of their life cycle and certified materials. Certifications include Forest Stewardship Council,

EnergyStar, and Carpet & Rug Institute. This may be the most practical at this juncture due to the status of the project and the fact that it would require the least in RFP transactional costs. It would result in some degree of environmental enhancement, but it would not be enforceable (like a specification is) and it is not possible to determine the degree of enhancement that would result. This option would likely add some costs to the project, although the extent cannot be determined at this time.

Council needs to consider these options and determine the direction it wants to go while balancing concerns of timing, costs, and environmental quality. Council may opt for one of these suggestions for the Level 2 project and another for the gym should it proceed¹. Obviously since the gym has not been designed or specified, there is greater flexibility for that phase of the project. I should also point out that, with the exception of the "no change" option, including environmental quality in Takoma Park's RFP's may result in conflicts with the :"nuclear free" policy that will require resolution.

California Specification 01350

This specification is the gold standard for green buildings and is worth discussing in a little more detail. The specification is quite comprehensive (even exhaustive) and contains both general and specific requirements. The general requirements include design elements such as energy conservation, sustainable site planning and landscaping, resource efficient materials, pollution, waste management, and water efficiency. Specific requirements include:

- Require practices to ensure healthy indoor air quality
- Maximize use of durable products
- Maximize use of products easy to maintain, repair and that can be cleaned with non-toxic substances
- Maximize recycled content in materials, products and systems
- Require use of wood from sources sustain ably harvested by the Forestry Stewardship Council
- Maximize use of reusable and recycled packaging
- Maximize use of products with low embodied energy (production, manufacturing, and transportation).

In addition, the Specification has detailed sections for each type of material or practice. For example, with carpet, the following requirements apply:

- Minimum 50% total recycled content with not less than 10% post-consumer recycled content
- Materials non-toxic, non-allergenic and free of similar health hazards (may require testing)
- Carpet must be 100% recyclable
- Final cleaning by HEPA vacuum prior to occupancy.

None of these requirements are in the current spec.

Potential Conflict with Nuclear Free requirements

If Takoma Park is to ever construct a truly green building, specifications will have to be closely examined for potential conflict with the nuclear free provisions. Compliance with both nuclear free

¹ Note that if Takoma Park is going to proceed with a green gym, ion is recommended that a LEED certified architect/engineer be retained from the beginning of the process to avoid surprises later in the process.

and environmental enhancement requirements may eliminate most bidders from the process. For example, the world's largest manufacture of photovoltaics (solar electricity systems) is BP-Amoco. Since they have a plant near Frederick, MD, they meet a goal of local manufacturing with reduced shipping. However, they are on the nuclear free list and would be precluded from participation. This is a policy issue that the Council will need to consider if Takoma Park really wants to fulfill green building objectives.

This memo is a short summary of what I have uncovered in my review. I think that Council needs to make a decision as to which (if any) of these options it wishes to pursue. I will be happy to answer any questions or followup on these things as you request.